

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Dranoff et al.

Attorney Docket: 02486/109  
(formerly 50059/005002)

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International

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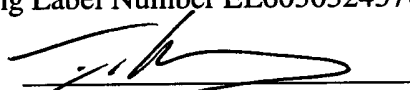
For: Tumor Antigens and  
Uses Thereof

Date: August 29, 2002

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**CERTIFICATE OF MAILING**

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Timothy M. Murphy

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Honorable Commissioner of Patents  
Washington, D.C. 20231

**Statement of Sequence Listing**

Sir:

In compliance with CFR §1.821(f), Applicants affirm that the Sequence Listing content of the paper copy and the computer readable copy are the same.

Date: August 29, 2002

Respectfully submitted,



Timothy M. Murphy  
Registration No. 33,198  
Attorney for Applicants  
Bromberg & Sunstein LLP  
125 Summer Street  
Boston, Massachusetts 02110-1618  
Tel: 617/443-9292  
Fax: 617/443-0004

# SEQUENCE LISTING

<110> Dranoff, Glenn  
Schmollinger, Jan  
Hodi, F. Stephen  
Mollick, Joseph

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 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 18

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Val	Phe	Lys	Ser	Ser	Gln	Glu	Ile	Gln	Glu	Arg	Leu	Val	Arg	Ala	Tyr
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Glu	Leu	Met	Leu	Gly	Phe	Tyr	Gly	Ile	Arg	Leu	Glu	Asp	Arg	Gly	Thr
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Phe	Leu	Glu	Glu	Thr	Leu	Val	Arg	Arg	Glu	Leu	Pro	Gly	Val	Arg	Gln
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Ser	Ala	Leu	Asp	Tyr	Phe	Met	Phe	Ala	Val	Arg	Cys	Arg	His	Gln	Arg
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Pro	Gly	Asp	Pro	Asp	His	Glu	Ala	Ser	Thr	Gln	Gly	Arg	Thr	Cys	Gly
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 Thr Gln Glu Val Gly Gly Gln Asp Pro Gly Glu Ala Val Gln Pro Cys  
 370 375 380  
 Arg Gln Pro Leu Gly Ala Arg Val Ala Asp Lys Val Arg Lys Arg Arg  
 385 390 395 400  
 Lys Val Asp Glu Gly Ala Gly Asp Ser Ala Ala Val Ala Ser Gly Gly  
 405 410 415  
 Ala Gln Thr Leu Ala Leu Ala Gly Ser Pro Ala Pro Ser Gly His Pro  
 420 425 430  
 Lys Ala Gly His Ser Glu Asn Gly Val Glu Glu Asp Thr Glu Gly Arg  
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 Lys Pro

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 <212> PRT  
 <213> Homo sapiens

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 Pro Lys Lys Val Pro Leu Gly Ala His Arg Arg Pro Gln Ala Pro Ala  
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 65 70 75 80  
 Gln Ala Pro Ala Arg Gln Asp Leu Gln Gly Met Ser Gln Pro Arg Ala  
 85 90 95  
 His Arg Arg Pro Gln Ala Pro Ala Arg Gln Asp Leu Gln Gly Thr Ser  
 100 105 110  
 Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Arg Gln Asp Leu  
 115 120 125  
 Gln Gly Thr Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala  
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 <212> PRT  
 <213> Homo sapiens

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 Pro Ala Gly Asp Glu Pro Ala Lys Thr Pro Ser Glu Thr Pro Gly Pro  
 35 40 45  
 Ser

<210> 21  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 21  
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 Leu Gln Gly Thr Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro  
 35 40 45  
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<210> 22  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 22  
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<210> 23  
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 <212> PRT  
 <213> Homo sapiens

<400> 23  
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<210> 24  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (2)...(17)  
 <223> Xaa at 2 is Thr or Met; Xaa at 4 is Gln or Arg;  
 Xaa at 7 is Ala or Pro; Xaa at 16 is Arg or Gln.

<400> 24  
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 1 5 10 15  
 Gln Asp Leu Gln

20

<210> 25  
<211> 14  
<212> PRT  
<213> Homo sapiens

<400> 25  
Ala His Arg Arg Pro Gln Ala Pro Ala Gln Gln Asp Leu Gln  
1 5 10

<210> 26  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 26  
Gly Thr Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Arg  
1 5 10 15  
Gln Asp Leu Gln  
20

<210> 27  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 27  
Gly Met Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Arg  
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Gln Asp Leu Gln  
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<210> 28  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 28  
Gly Thr Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Gln  
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Gln Asp Leu Gln  
20

<210> 29  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 29  
Gly Thr Ser Gln Pro Arg Pro His Arg Arg Pro Gln Ala Pro Ala Arg  
1 5 10 15  
Gln Asp Leu Gln  
20

<210> 30  
<211> 20  
<212> PRT  
<213> Homo sapiens

<220>  
<221> VARIANT  
<222> (1)...(20)  
<223> Xaa at 9 is Arg or Ser; Xaa at 14 is Ala or Thr;

xaa at 15 is Gly or Arg; Xaa at 20 is Glu or Lys

<400> 30  
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 1 5 10 15  
 Glu Pro Ala Xaa  
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<210> 31  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 31  
 Ser Pro Ser Glu Thr Pro Gly Pro Arg Pro Ala Gly Pro Ala Gly Asp  
 1 5 10 15  
 Glu Pro Ala Glu  
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<210> 32  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 32  
 Ser Pro Ser Glu Thr Pro Gly Pro Ser Pro Ala Gly Pro Thr Arg Asp  
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 Glu Pro Ala Glu  
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<210> 33  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 33  
 Ser Pro Ser Glu Thr Pro Gly Pro Ser Pro Ala Gly Pro Thr Arg Asp  
 1 5 10 15  
 Glu Pro Ala Lys  
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<210> 34  
 <211> 6670  
 <212> DNA  
 <213> Homo sapiens

<400> 34  
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 Phe Val Trp Gly Pro Gln Asp Lys Leu Arg Arg Phe Lys Pro Ser Ser  
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 Pro Glu His Ser Lys Gly Gly Gly Arg Val Asp Glu Gly Pro Gln Pro  
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 Pro Thr Glu Pro Gly Pro Gln Ser Ala Ser Glu Val Glu Lys Ile Ala  
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 370 375 380  
 Arg Gln Pro Leu Gly Ala Arg Val Ala Asp Lys Val Arg Lys Arg Arg  
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 Lys Val Asp Glu Gly Ala Gly Asp Ser Ala Ala Val Ala Ser Gly Gly  
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<400> 46

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Pro	Gly	Ala	Gly	Ala	Ser	Gly	Gly	Thr	Ser	Pro	Ser	Ala	Thr	Gln	Pro
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Phe	Ile	His	Asn	Ser	His	Asp	Leu	Thr	Tyr	Phe	Ala	Tyr	Leu	Ile	Lys
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Ala	Thr	Asp	Pro	Ser	Gln	Val	Pro	Asp	Val	Ile	Ser	Ser	Ile	Arg	Gln
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Leu	Ser	Lys	Ala	Ala	Met	Lys	Glu	Asp	Ala	Lys	Pro	Ser	Lys	Asp	Asn
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Cys	Met	Glu	Lys	Phe	Ser	Leu	His	Glu	Gln	Gln	Arg	Leu	Lys	Ile	Gln
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 Glu Arg Val Gln Lys Met Lys Pro Val Ser Asp Gln Glu Glu Asn Glu 460  
 Leu Val Ile Leu His Leu Arg Gln Leu Cys Glu Ala Lys Gln Lys Thr 475  
 His Val His Ile Gly Glu Gly Pro Ser Thr Ile Ser Asn Ser Thr Ile 480  
 Pro Glu Asn Ala Thr Ser Ser Gly Arg Phe Lys Leu Asp Ile Leu Lys 495  
 Asn Lys Ala Lys Arg Ser Leu Thr Ser Ser Leu Glu Asn Ile Phe Ser 500  
 Arg Gly Ala Asn Arg Met Arg Gly Arg Leu Gly Ser Val Asp Ser Phe 510  
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 Ser Pro Pro Gly Thr Pro Pro Ala Ser Pro Pro Ser Ser Ala Trp Gln 535  
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 His Thr Phe Ser His Pro Pro Ser Ser Thr Lys Arg Lys Leu Asn Leu 555  
 Gln Asp Gly Arg Ala Gln Gly Val Arg Ser Pro Leu Leu Arg Gln Ser 560  
 Ser Ser Glu Gln Cys Ser Asn Leu Ser Ser Val Arg Arg Met Tyr Lys 575  
 Glu Ser Asn Ser Ser Ser Ser Leu Pro Ser Leu His Thr Ser Phe Ser 585  
 Ala Pro Ser Phe Thr Ala Pro Ser Phe Leu Lys Ser Phe Tyr Gln Asn 590  
 Ser Gly Arg Leu Ser Pro Gln Tyr Glu Asn Glu Ile Arg Gln Asp Thr 605  
 Ala Ser Glu Ser Ser Asp Gly Glu Gly Arg Lys Arg Thr Ser Thr 610  
 Cys Ser Asn Glu Ser Leu Ser Val Gly Gly Thr Ser Val Thr Pro Arg 620  
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 Gln Gln Ile Leu Leu Leu Arg Met Glu Lys Glu Asn Gln Lys Leu Glu 685  
 Gly Ala Ser Arg Asp Glu Leu Gln Ser Arg Lys Val Lys Leu Asp Tyr 690  
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 <212> PRT  
 <213> Homo sapiens

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Asp	Glu	Glu	Ile	Lys	Lys	Thr	Thr	Leu	Ala	Ser	Ala	Val	Ala	Cys	Leu
			35				40					45			
Glu	Gly	Lys	Ser	Pro	Gly	Glu	Lys	Val	Ala	Ile	Ile	His	Gln	His	Leu
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Phe	Ser	Gly	Asn	Pro	Ser	Val	Glu	Ile	Val	His	Gly	Ile	Met	His	Leu
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Gln	Phe	Asn	Ser	Ile	Glu	Asp	Asp	Val	Cys	Gln	Leu	Val	Tyr	Val	Glu

225 Arg Ala Glu Val Leu Lys Ser Glu Asp Gly Ala Ser Leu Pro Val Met  
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 245 Asp Leu Thr Glu Leu Pro Lys Cys Thr Val Cys Leu Glu Arg Met Asp  
 250 255  
 260 Glu Ser Val Asn Gly Ile Leu Thr Thr Leu Cys Asn His Ser Phe His  
 265 270  
 275 Ser Gln Cys Leu Gln Arg Trp Asp Asp Thr Thr Cys Pro Val Cys Arg  
 280 285  
 290 Tyr Cys Gln Thr Pro Glu Pro Val Glu Glu Asn Lys Cys Phe Glu Cys  
 295 300  
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 325 Cys Gly Arg Tyr Val Ser Arg His Ala Tyr Lys His Phe Glu Glu Thr  
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 370 Lys Ile Val Gln Tyr Glu Cys Glu Gly Asp Thr Cys Gln Glu Glu Lys  
 375 380  
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 390 395 400  
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 455 460  
 465 Ala Lys Leu Thr Asn Glu Leu Lys Glu Glu Gln Glu Met Asn Lys Cys  
 470 475 480  
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 490 495  
 500 Arg Val Leu Lys Glu Thr Cys Asp Gln Lys Asp Leu Gln Ile Thr Glu  
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 515 Ile Gln Glu Gln Leu Arg Asp Val Met Phe Tyr Leu Glu Thr Gln Gln  
 520 525  
 530 Lys Ile Asn His Leu Pro Ala Glu Thr Arg Gln Lys Ser Arg Arg Asp  
 535 540 545  
 545 Arg Ser Thr Ser Pro Trp Pro Arg Pro Arg Ala Leu Pro Leu Arg Gly  
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 <213> Homo sapiens

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 <211> 441  
 <212> DNA  
 <213> Homo sapiens



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cctctgaggt	tctatttagc	tttgcatgag	tacatagtat	cccagtgatc	tgcaaaatta	300
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<210> 51  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

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tggaaataag	gcctataatg	aagacagaat	cactaacact	gtcagaatta	actgatacag	300
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 <212> DNA  
 <213> Homo sapiens

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 <211> 417  
 <212> DNA  
 <213> Homo sapiens

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 <211> 362  
 <212> DNA  
 <213> Homo sapiens

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<210> 55  
<211> 236  
<212> DNA  
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gaaatgcaaa gtcattattc cctcattcta tgcttccatt tactctaaga attcagaaac 236  
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<210> 56  
<211> 368  
<212> DNA  
<213> Homo sapiens

<400> 56 60  
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<210> 57  
<211> 153  
<212> DNA  
<213> Homo sapiens

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<210> 58  
<211> 324  
<212> DNA  
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<210> 59  
<211> 416  
<212> DNA  
<213> Homo sapiens

<400> 59 60  
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 <212> PRT  
 <213> Homo sapiens

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 Cys Met Lys Asn Asn Leu Pro Ser Asn Asp Ser Ser Lys Phe Lys Thr  
 35 40 45  
 Thr Glu Ser His Met Asp Trp Glu Lys Val Ala Phe Lys Asp Phe Ser  
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Gly	Asp	Met	Cys	Lys	Leu	Lys	Trp	Val	Glu	Ile	Ser	Asn	Glu	Val	Arg
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Lys	Phe	Arg	Thr	Leu	Thr	Glu	Leu	Ile	Leu	Asp	Ala	Gln	Glu	His	Val
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Lys	Asn	Pro	Tyr	Lys	Gly	Lys	Lys	Leu	Lys	Lys	His	Pro	Asp	Phe	Pro
			100					105					110		
Lys	Lys	Pro	Leu	Thr	Pro	Tyr	Phe	Arg	Phe	Phe	Met	Glu	Lys	Arg	Ala
		115					120					125			
Lys	Tyr	Ala	Lys	Leu	His	Pro	Glu	Met	Ser	Asn	Leu	Asp	Leu	Thr	Lys
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Ile	Leu	Ser	Lys	Lys	Tyr	Lys	Glu	Leu	Pro	Glu	Lys	Lys	Lys	Met	Lys
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Tyr	Ile	Gln	Asp	Phe	Gln	Arg	Glu	Lys	Gln	Glu	Phe	Glu	Arg	Asn	Leu
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Ser	Asp	Ile	Pro	Glu	Lys	Pro	Lys	Thr	Pro	Gln	Gln	Leu	Trp	Tyr	Thr
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His	Glu	Lys	Lys	Val	Tyr	Leu	Lys	Val	Arg	Pro	Asp	Glu	Ile	Met	Arg
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Asp	Tyr	Ile	Gln	Lys	His	Pro	Glu	Leu	Asn	Ile	Ser	Glu	Glu	Gly	Ile
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Thr	Lys	Ser	Thr	Leu	Thr	Lys	Ala	Glu	Arg	Gln	Leu	Lys	Asp	Lys	Phe
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Asp	Gly	Arg	Pro	Thr	Lys	Pro	Pro	Pro	Asn	Ser	Tyr	Ser	Leu	Tyr	Cys
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Val	Leu	Cys	Ser	Gln	Gln	Trp	Lys	Leu	Leu	Ser	Gln	Lys	Glu	Lys	Asp
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Ala	Tyr	His	Lys	Lys	Cys	Asp	Gln	Lys	Lys	Lys	Asp	Tyr	Glu	Val	Glu
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Leu	Leu	Arg	Phe	Leu	Glu	Ser	Leu	Pro	Glu	Glu	Glu	Gln	Gln	Arg	Val
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Leu	Gly	Glu	Glu	Lys	Met	Leu	Asn	Ile	Asn	Lys	Lys	Gln	Ala	Thr	Ser
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Lys	Pro	Lys	Arg	Pro	Val	Ser	Ala	Met	Phe	Ile	Phe	Ser	Glu	Glu	Lys
		370				375					380				
Arg	Arg	Gln	Leu	Gln	Glu	Glu	Arg	Pro	Glu	Leu	Ser	Glu	Ser	Glu	Leu
385					390					395					400
Thr	Arg	Leu	Leu	Ala	Arg	Met	Trp	Asn	Asp	Leu	Ser	Glu	Lys	Lys	Lys
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Ala	Lys	Tyr	Lys	Ala	Arg	Glu	Ala	Ala	Leu	Lys	Ala	Gln	Ser	Glu	Arg
			420					425					430		
Lys	Pro	Gly	Gly	Glu	Arg	Glu	Glu	Arg	Gly	Lys	Leu	Pro	Glu	Ser	Pro
		435					440					445			
Lys	Arg	Ala	Glu	Glu	Ile	Trp	Gln	Gln	Ser	Val	Ile	Gly	Asp	Tyr	Leu
	450					455					460				
Ala	Arg	Phe	Lys	Asn	Asp	Arg	Val	Lys	Ala	Leu	Lys	Ala	Met	Glu	Met
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Thr	Trp	Asn	Asn	Met	Glu	Lys	Lys	Glu	Lys	Leu	Met	Trp	Ile	Lys	Lys
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Ala	Ala	Glu	Asp	Gln	Lys	Arg	Tyr	Glu	Arg	Glu	Leu	Ser	Glu	Met	Arg
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Glu	Pro	Lys	Lys	Pro	Pro	Met	Asn	Gly	Tyr	Gln	Lys	Phe	Ser	Gln	Glu
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Leu	Leu	Ser	Asn	Gly	Glu	Leu	Asn	His	Leu	Pro	Leu	Lys	Glu	Arg	Met
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Val	Glu	Ile	Gly	Ser	Arg	Trp	Gln	Arg	Ile	Ser	Gln	Ser	Gln	Lys	Glu
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His Tyr Lys Lys Leu Ala Glu Glu Gln Gln Lys Gln Tyr Lys Val His  
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 595 600 605  
 Lys Glu Tyr Ile Ser Asn Lys Arg Lys Ser Met Thr Lys Leu Arg Gly  
 610 615 620  
 Pro Asn Pro Lys Ser Ser Arg Thr Thr Leu Gln Ser Lys Ser Glu Ser  
 625 630 635 640  
 Glu Glu Asp Asp Glu Glu Asp Glu Asp Asp Glu Asp Glu Glu  
 645 650 655  
 Glu Glu Asp Asp Glu Asn Gly Asp Ser Ser Glu Asp Gly Gly Asp Ser  
 660 665 670  
 Ser Glu Ser Ser Ser Glu Asp Glu Ser Glu Asp Gly Asp Glu Asn Glu  
 675 680 685  
 Glu Asp Asp Glu Asp Glu Asp Asp Asp Glu Asp Asp Asp Glu Asp Glu  
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 Ser Ser Asp Ser Asp Ser Asn  
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 <212> DNA  
 <213> Homo sapiens

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 taagagaaaag agagagaaaat ggagaaagag aagaaaaaag ggataaagaa tgaaagagag 180  
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 aatttgagtg tgatcttagt tgtgtgtgtg tgtatttgac tgggtggaaat tattggagag 240  
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<210> 64  
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gttgataaca	ggcctattat	aatccgattg	tcatctactc	caaacacaac	agctgggtctg	480
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 <212> DNA  
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 <212> DNA  
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gagaagttta	ccattcagct	tcagttgtcc	caaaaatctt	cagaatcaga	attatccaaa	240
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aaaactactg	aagcactgaa	atccgaggaa	aaagccatgg	gtaagctggc	tctctcgaaa	360
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 <212> PRT  
 <213> Homo sapiens

<400> 68

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			20					25				30			
Gln	Ser	Glu	Ile	Asp	Gly	Leu	Lys	Gly	Arg	His	Glu	Lys	Phe	Lys	Val
		35				40					45				
Glu	Ser	Glu	Gln	Gln	Tyr	Phe	Glu	Ile	Glu	Lys	Arg	Leu	Ser	His	Ser
	50				55			60							
Gln	Glu	Arg	Leu	Val	Asn	Glu	Thr	Arg	Glu	Cys	Gln	Ser	Leu	Arg	Leu
65				70				75					80		
Glu	Leu	Glu	Lys	Leu	Asn	Asn	Gln	Leu	Lys	Ala	Leu	Thr	Glu	Lys	Asn
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Lys	Glu	Leu	Glu	Ile	Ala	Gln	Asp	Arg	Asn	Ile	Ala	Ile	Gln	Ser	Gln
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Phe	Thr	Arg	Thr	Lys	Glu	Glu	Leu	Glu	Ala	Glu	Lys	Arg	Asp	Leu	Ile
		115					120				125				
Arg	Thr	Asn	Glu	Arg	Leu	Ser	Gln	Glu	Leu	Glu	Tyr	Leu	Thr	Glu	Asp
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Val	Lys	Arg	Leu	Asn	Glu	Lys	Leu	Lys	Glu	Ser	Asn	Thr	Thr	Lys	Gly
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Glu	Leu	Gln	Leu	Lys	Leu	Asp	Glu	Leu	Gln	Ala	Ser	Asp	Val	Ser	Val
				165					170						175
Lys	Tyr	Arg	Glu	Lys	Arg	Leu	Glu	Gln	Glu	Lys	Glu	Leu	Leu	His	Ser
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Gln	Asn	Thr	Trp	Leu	Asn	Thr	Glu	Leu	Lys	Thr	Lys	Thr	Asp	Glu	Leu
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Leu	Ala	Leu	Gly	Arg	Glu	Lys	Gly	Asn	Glu	Ile	Leu	Glu	Leu	Lys	Cys
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Asn	Gly	Leu	Lys	Thr	Ser	Asn	Glu	His	Leu	Gln	Lys	His	Val	Glu	Asp
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Glu	Lys	Phe	His	Asn	Glu	Leu	Asn	Ala	His	Ile	Lys	Leu	Ser	Asn	Leu
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Tyr	Lys	Ser	Ala	Ala	Asp	Asp	Ser	Glu	Ala	Lys	Ser	Asn	Glu	Leu	Thr
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Arg	Ala	Val	Glu	Glu	Leu	His	Lys	Leu	Leu	Lys	Glu	Ala	Gly	Glu	Ala
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Asn	Lys	Ala	Ile	Gln	Asp	His	Leu	Leu	Glu	Val	Glu	Gln	Ser	Lys	Asp
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Gln	Met	Glu	Lys	Glu	Met	Leu	Glu	Lys	Ile	Gly	Arg	Leu	Glu	Lys	Glu
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Leu	Glu	Asn	Ala	Asn	Asp	Leu	Leu	Ser	Ala	Thr	Lys	Arg	Lys	Gly	Ala
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Ile	Leu	Ser	Glu	Glu	Glu	Leu	Ala	Ala	Met	Ser	Pro	Thr	Ala	Ala	Ala
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Val	Ala	Lys	Ile	Val	Lys	Pro	Gly	Met	Lys	Leu	Thr	Glu	Leu	Tyr	Asn
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Ala	Tyr	Val	Glu	Thr	Gln	Asp	Gln	Leu	Leu	Leu	Glu	Lys	Leu	Glu	Asn
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Lys	Ala	Pro	Ile	Leu	Lys	Arg	Gln	Arg	Glu	Glu	Tyr	Glu	Arg	Ala	Gln
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Lys	Ala	Val	Ala	Ser	Leu	Ser	Val	Lys	Leu	Glu	Gln	Ala	Met	Lys	Glu
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Ile	Gln	Arg	Leu	Gln	Glu	Asp	Thr	Asp	Lys	Ala	Asn	Lys	Gln	Ser	Ser
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Val	Leu	Glu	Arg	Asp	Asn	Arg	Arg	Met	Glu	Ile	Gln	Val	Lys	Asp	Leu
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Ser	Gln	Gln	Ile	Arg	Val	Leu	Leu	Met	Glu	Leu	Glu	Glu	Ala	Arg	Gly
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Asn	His	Val	Ile	Arg	Asp	Glu	Glu	Val	Ser	Ser	Ala	Asp	Ile	Ser	Ser
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Ser	Ser	Glu	Val	Ile	Ser	Gln	His	Leu	Val	Ser	Tyr	Arg	Asn	Ile	Glu
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Glu	Leu	Gln	Gln	Gln	Asn	Gln	Arg	Leu	Leu	Val	Ala	Leu	Arg	Glu	Leu
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Gly	Glu	Thr	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Thr	Thr	Ser	Ser	Lys	Ile
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Thr	Glu	Leu	Gln	Leu	Lys	Leu	Glu	Ser	Ala	Leu	Thr	Glu	Leu	Glu	Gln
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Thr	Pro	Lys	Arg	Pro	Ser	Thr	Ser	Gln	Thr	Val	Ser	Thr	Pro	Ala	Pro
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